10

15

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please add Claim 35 as follows:

1. (Previously Presented) A method for use in managing a call queue within a call center, said call queue for handling calls having a plurality of different call types that each have a corresponding service objective value, comprising the steps of:

receiving a new call from an exterior environment, said new call having a first call type;

ascertaining a first service objective value associated with said new call based on said first call type;

selecting a currently enqueued call in the call queue, the currently enqueued call having a second service objective value;

determining a first quality factor assuming that the new call is enqueued after the currently enqueued call;

determining a second quality factor assuming that the new call is enqueued in place of the currently enqueued call, said first quality factor reflecting the first and second service objective values; and

comparing the first and second quality factors to determine a position within the call queue for the new call.

2. (Previously Presented) The method claimed in claim 1, wherein:

in said comparing step, when the second quality factor is less than the first quality factor, the new call is placed in the queue position of the currently enqueued call and the currently enqueued call is moved to a later queue position, and, when the second quality Application No. 09/492,114
Reply to Office Action of Jun. 17, 2004
Amendment dated Sep. 14, 2004

and the second service objective value.

5

5

- factor is not less than the first quality factor, the new call is not placed in the queue position of the currently enqueued call.
 - 3. (Previously Presented) The method claimed in claim 1, wherein: said step of comparing includes calculating, for the currently enqueued call in a first queue position in said call queue, a ratio R_{CC} between an estimated total time in queue for the currently enqueued call if the currently enqueued call remains in the first queue position
 - 4. (Previously Presented) The method claimed in claim 3, wherein: said step of comparing includes determining a ratio R_{NC} between an estimated total time in queue for the new call in the first queue position and the first service objective value associated with the new call.
 - 5. (Previously Presented) The method claimed in claim 4, wherein: said step of comparing includes determining a ratio R_{CS} between an estimated total time in queue for the currently enqueued call in a subsequent queue position within said call queue and the second service objective value, wherein said subsequent queue position is a next queue position to said first queue position within said call queue.
 - 6. (Previously Presented) The method claimed in claim 5, wherein: said step of comparing includes determining a ratio R_{NS} between an estimated total time in queue for the new call in the subsequent queue position and the first service objective value.
 - 7. (Previously Presented) The method claimed in claim 6, wherein:

said step of comparing includes determining whether said new call should be placed in said first queue position within said call queue based on values for R_{CC} , R_{NC} , R_{CS} , and R_{NS} .

- 8. (Previously Presented) The method claimed in claim 6, wherein: said step of comparing includes ascertaining that said new call is to be placed in said first queue position when $|R_{NC}-R_{CS}| < |R_{NS}-R_{CC}|$.
- (Original) The method claimed in claim 1, wherein:
 said plurality of different call types includes a plurality of vector directory numbers
 (VDNs) associated with incoming calls.

10-15. (Canceled)

5

10

16. (Previously Presented) A system for use in distributing incoming calls to a plurality of local agents in a call center, said system comprising:

a receiver for receiving incoming calls from an exterior environment;

a call queue unit for use in maintaining a queue of calls to be answered by the plurality of local agents, said queue having a plurality of successive queue positions including an initial queue position, said initial queue position for holding a call that is next in line to be answered by an agent in the plurality of local agents; and

a call positioning unit for positioning a new call received by said receiver within the queue, said call positioning unit determining a position within the queue for the new call by determining a first quality factor assuming that the new call is enqueued in a first position in the queue and a second quality factor assuming that the new call is enqueued in a second, different position in the queue and comparing the relative values of the first and second quality factors.

5

5

17. (Previously Presented) The system claimed in claim 16, wherein:

said first and second quality factors are determined using a service objective value associated with the new call.

18. (Original) The system claimed in claim 16, wherein:

said call positioning unit determines said position for said new call based on service objective values associated with calls already within the queue.

19. (Previously Presented) The system claimed in claim 16, wherein:

said call positioning unit includes a comparison unit for comparing the first quality value associated with said new call to the second quality value associated with a current call within a first queue position to determine whether said new call should replace said current call within said first queue position.

20. (Original) The system claimed in claim 16, wherein:

said call positioning unit includes an analysis unit for analyzing individual queue positions within said queue, starting with said initial queue position, until a queue position is found that meets a predetermined condition indicating that said new call should replace an existing call within said queue position.

21. (Previously Presented) The method claimed in claim 2, wherein, when the second quality factor is not less than the first quality factor, the comparing step comprises:

selecting a third call, the third call being currently enqueued, being different from the currently enqueued call, being enqueued in a later queue position than the currently enqueued call, and having an associated third service objective value;

repeating the determining steps substituting the third call for the currently enqueued call.

10

5

- 22. (Previously Presented) A computer readable medium comprising instructions to perform the steps of claim 1.
- 23. (Previously Presented) A method for use in managing a call queue within a call center, comprising the steps of:

receiving a new call from an exterior environment;

selecting a currently enqueued call in the call queue;

determining a first quality factor assuming that the new call is enqueued after the currently enqueued call;

determining a second quality factor assuming that the new call is enqueued in place of the currently enqueued call; and

comparing the first and second quality factors to determine a position within the call queue for the new call.

- 24. (Previously Presented) The method claimed in claim 23, wherein the currently enqueued call has an associated second service objective value, the new call has an associated first service objective value, wherein said call queue handles calls having a plurality of different call types, said new call has a first call type, said currently enqueued call has a second call type, the first service objective value is associated with the first call type, and the second service objective value is associated with the second call type.
 - 25. (Previously Presented) The method claimed in claim 23, wherein:

in said comparing step, when the second quality factor is less than the first quality factor, the new call is placed in the queue position of the currently enqueued call and the currently enqueued call is moved to a later queue position, and, when the second quality

5

- factor is not less than the first quality factor, the new call is not placed in the queue position of the currently enqueued call.
 - 26. (Previously Presented) The method claimed in claim 24, wherein:

said step of comparing includes calculating, for the currently enqueued call in a first queue position in said call queue, a ratio R_{CC} between an estimated total time in queue for the currently enqueued call if the currently enqueued call remains in the first queue position and the second service objective value, wherein the first quality factor is a function of the ratio R_{CC} .

27. (Previously Presented) The method claimed in claim 26, wherein:

said step of comparing includes determining a ratio R_{NC} between an estimated total time in queue for the new call in the first queue position and the first service objective value associated with the new call, wherein the second quality factor is a function of the ratio R_{NC} .

28. (Previously Presented) The method claimed in claim 27, wherein:

said step of comparing includes determining a ratio R_{CS} between an estimated total time in queue for the currently enqueued call in a subsequent queue position within said call queue and the second service objective value, wherein said subsequent queue position is a next queue position to said first queue position within said call queue, wherein the second quality factor is a function of the ratio R_{CS} .

29. (Previously Presented) The method claimed in claim 28, wherein:

said step of comparing includes determining a ratio R_{NS} between an estimated total time in queue for the new call in the subsequent queue position and the first service objective value, wherein the first quality factor is a function of the ratio R_{NS} .

- 30. (Previously Presented) The method claimed in claim 29, wherein: said step of comparing includes determining whether said new call should be placed in said first queue position within said call queue based on values for R_{CC} , R_{NC} , R_{CS} , and R_{NS} .
- 31. (Previously Presented) The method claimed in claim 29, wherein: said step of comparing includes ascertaining that said new call is to be placed in said first queue position when $|R_{NC}-R_{CS}| < |R_{NS}-R_{CC}|$.
- 32. (Previously Presented) The method claimed in claim 24, wherein: said plurality of different call types includes a plurality of vector directory numbers (VDNs) associated with incoming calls.
- 33. (Previously Presented) The method claimed in claim 24, wherein, when the second quality factor is not less than the first quality factor, the comparing step comprises: selecting a third call, the third call being currently enqueued, being different from the currently enqueued call, being enqueued in a later queue position than the currently enqueued call, and having an associated third service objective value;

repeating the determining steps substituting the third call for the currently enqueued call.

- 34. (Previously Presented) A computer readable medium comprising instructions to perform the steps claimed in claim 23.
- 35. (New) The method claimed in claim 23, wherein, after the comparing step, the currently enqueued call is relocated to a different queue position, and the determined queue position for the new call is closer to a head of the call queue than the relocated queue position for the currently enqueued call.